AMENDMENTS TO THE CLAIMS

Claim 1-54 were initially pending.

Please amend claims 1, 10, and 40-42.

Please cancel claims 13, 27-39, and 48-50 without prejudice.

Accordingly, claims 1-12, 14-26, 40-47, and 51-54 remain pending.

The following listing of claims replaces all prior versions and listings of claims in the application.

1.   (Presently amended) One or more computer-readable media having stored thereon a plurality of instructions that, when executed by one or more processors of a computer, causes the one or more processors to perform the following acts:

receiving search criteria;

generating a query vector based on text features of the search criteria;

identifying non-text media content pieces to be rendered by:

classifying the one or more of non-text media content as meaningful or not meaningful such that if a piece of the non-text media is an image, the image is determined to be meaningful as a function of one or more of a color histogram, size, and image semantics; and

comparing the query vector to text feature vectors associated with a plurality of the media content pieces;

receiving user feedback regarding the relevancy of the identified media content pieces;

modifying the query vector based on the user feedback;

modifying one or more of the text feature vectors associated with the plurality of media content pieces based on the user feedback; and

identifying new media content pieces to be rendered by comparing the modified query vector to the text feature vectors, including the one or more modified text feature vectors, associated with the plurality of media content pieces.

2. (Original) One or more computer readable media as recited in claim 1, further comprising:

generating another query vector based on one or more low-level features of the search criteria; and

wherein the identifying comprises,

comparing the query vector to text feature vectors associated with the plurality of media content pieces to generate first results,

comparing the other query vector to other low-level feature vectors associated with the plurality of media content pieces to generate second results, and

combining, for one of the plurality of media content pieces, the first and second results corresponding to the one media content piece.

3. (Original) One or more computer readable media as recited in claim 2, further comprising altering, based on the user feedback, a weighting of the results used in the combining.

4.   (Original) One or more computer readable media as recited in claim 3, wherein the altering comprises:

determining, for the one of the plurality of media content pieces, whether the first result corresponding to the one media content piece is greater than the second result corresponding to the one media content piece; and

weighting the first result corresponding to the one media content piece more heavily if the first result corresponding to the one media content piece is less than the second result corresponding to the one media content piece, and otherwise weighting the second result corresponding to the one media content piece more heavily.

5.   (Original) One or more computer readable media as recited in claim 1, wherein modifying one or more of the text feature vectors associated with the plurality of media content pieces based on the user feedback comprises altering a weighting of one or more elements in the feature vector based on the user feedback.

6.   (Original) One or more computer readable media as recited in claim 1, wherein the search criteria comprises one or more words.

7.   (Original) One or more computer readable media as recited in claim 1, wherein the piece of media content comprises an image.

8.   (Original) One or more computer readable media as recited in claim 1, wherein the piece of media content comprises a portion of audio content.

9.   (Original) One or more computer readable media as recited in claim 1, wherein the piece of media content comprises a portion of multimedia content.

10.   (Presently amended) A method comprising:

identifying a media content source;

collecting one or more pieces of non-text media content and associated text from the media content source;

classifying the one or more of non-text media content as meaningful or not meaningful such that if a piece of the non-text media is an image, the image is determined to be meaningful as a function of one or more of a color histogram, size, and image semantics;

extracting, for a piece of non-text media content classified as being meaningful, one or more text features from the associated text; and

making the one or more text features available for searching.

11.   (Original) A method as recited in claim 10, further comprising:

generating one or more text feature vectors from the extracted one or more text features; and

wherein the making comprises making the one or more text feature vectors available for searching.

12.   (Original) A method as recited in claim 10, further comprising:

extracting one or more low-level features from the media content piece; and

making the one or more low-level features available for searching.

13.   (Canceled)

14.   (Original) A method as recited in claim 10, wherein the media content source comprises a web site including a plurality of web pages, each web page including a plurality of pieces of media content and text associated with one or more of the plurality of pieces of media content.

15.   (Original) A method as recited in claim 10, wherein the associated text for a piece of media content comprises a filename and the one or more text features comprises one or more words in the filename.

16.   (Original) A method as recited in claim 10, wherein the associated text for a piece of media content comprises a uniform resource locator (URL) and the one or more text features comprises one or more words in the URL.

17.   (Original) A method as recited in claim 10, wherein the associated text for a piece of media content comprises alternate text that can be displayed in place of the media content, and the one or more text features comprises one or more words of the alternate text.

18.   (Original) A method as recited in claim 10, wherein the associated text for a piece of media content comprises text surrounding the piece of media content on a web page, and the one or more text features comprises one or more words of the text surrounding the piece of media content.

19.   (Original) A method as recited in claim 10, wherein the associated text for a piece of media content comprises a title of a web page that includes the piece of media content, and the one or more text features comprises one or more words in the title.

20.   (Original) A method as recited in claim 10, wherein the associated text for a piece of media content comprises a link on a web page that includes the piece of media content, and the one or more text features comprises one or more words in the link.

21.   (Original) A method as recited in claim 10, wherein the associated text for a piece of media content comprises anchor text corresponding to the piece of media content, and the one or more text features comprises one or more words in the anchor text.

22.   (Original) A method as recited in claim 10, wherein the associated text for a piece of media content comprises an image annotation corresponding to the piece of media content, and the one or more text features comprises one or more words in the image annotation.

23.   (Original) A method as recited in claim 10, wherein each of the one or more pieces of media content comprises an image.

24.   (Original) A method as recited in claim 10, wherein each of the one or more pieces of media content comprises a piece of audio content.

25.   (Original) A method as recited in claim 10, wherein each of the one or more pieces of media content comprises a piece of multimedia content.

26.   (Original) One or more computer-readable memories containing a computer program that is executable by a processor to perform the method recited in claim 10.

27 through 39 (Canceled).

40.   (Presently amended) A system comprising:

a crawler module coupled to access a media content source and collect a plurality of media content pieces ~~and associated text~~ from the media content source, the media content pieces comprising text and one or more different types of media content that are not text;

a classifier module coupled to classify the one or more different types as meaningful or not meaningful such that if a piece of the one or more different types is an image, the image is determined to be meaningful as a function of one or more of a color histogram, size, and image semantics;

a feature extraction module coupled to extract, for a piece of the one or more different types and from the one or more of the media content pieces and as a function of whether text is determined to be meaningful, text comprising one or

more keywords associated with the piece~~one or more text features from one of the~~ ~~media content pieces~~; and

a media content indexing module coupled to generate, for the piece, a text feature vector~~, based on the extracted one or more text features, corresponding to the one media content piece~~ identifying, for each keyword of the keywords, a first frequency that the keyword is used in the text, and a second frequency indicating frequency that the keyword is used with respect to any other ones of the one or more different types of media content.

41.   (Presently amended) A system comprising:

a query generator to generate a query vector based on received search criteria; and

a matching module coupled to,

receive the query vector and compare the query vector to a plurality of feature vectors corresponding to a plurality of pieces of media content, wherein each of the plurality of feature vectors has been generated based on text associated with one of the plurality of pieces of media content and an indication that the one was classified as meaningful as a function of one or more of a color histogram, size, and image semantics~~;~~; and

identify one or more of the plurality of pieces of media content to return for rendering to a user based on the comparison of the query vector to the plurality of feature vectors.

42.   (Presently amended) A method comprising:

receiving search criteria;

identifying, based at least in part on the search criteria, a piece of media content to be rendered;

receiving, after rendering of the piece of media content, user feedback regarding ~~the~~ relevancy of the ~~rendered~~ piece of media content;

weighting for another piece of media content, based on the user feedback, both a result of comparing ~~the~~ a_high-level query vector to a high-level feature vector of the other piece of media content and a result of comparing ~~the~~ a_low-level query vector to a low-level feature vector of the other piece of media content; and

combining the weighted result to determine whether to identify the other piece of media content for rendering.

43.   (Original) A method as recited in claim 42, further comprising generating a new high-level query vector and a new low-level query vector based at least in part on the search criteria.

44.   (Original) A method as recited in claim 42, further comprising:

generating a user space vector corresponding to the piece of media content; and

using the user space vector corresponding to the piece of media content to modify the high-level feature vector corresponding to the piece of media content.

45.   (Original) A method as recited in claim 42, further comprising altering a weighting of one or more elements in the feature vector based on the user feedback.

46.   (Original) A method as recited in claim 42, wherein the high-level feature vector of the other piece of media content is a text feature vector.

47.   (Original) One or more computer-readable memories containing a computer program that is executable by a processor to perform the method recited in claim 42.

48 – 50 (Canceled)

51.   (Original) One or more computer-readable media having stored thereon a plurality of instructions that, when executed by one or more processors of a computer, causes the one or more processors to perform acts including:

identifying a piece of media content to render to a user based at least in part on comparing a query vector corresponding to search criteria of the user and a feature vector corresponding to the piece of media content;

receiving user feedback regarding the relevancy of the piece of media content;

modifying the query vector based on the received user feedback; and

modifying the feature vector based on the received user feedback in an off-line log mining process.

52.   (Original) One or more computer-readable media as recited in claim 51 wherein modifying the query vector comprises generating a vector U based on

pieces of media content identified as relevant in the user feedback, and generating a new query vector D_{new} according to the following:

$$D_{new} = \eta U + (1 - \eta)D$$

where η represents a confidence in the vector U.

53.   (Original) One or more computer-readable media as recited in claim 52, wherein modifying the query vector comprises generating a vector V based on pieces of media content identified as irrelevant in the user feedback, and generating a new query vector D_{final} according to the following:

$$D_{final} = D_{new} * (1 - V)$$

54.   (Original) One or more computer-readable media as recited in claim 51, wherein the piece of media content comprises one of: audio content, visual content, and multimedia content.